

i although it has not  
t intensity enough to  
d decompose chloride of  
g lead under the same  
y circumstances.  
.e 716. A drop of *water* placed  
st at *a* instead of the fused  
e chlorides.,  
d showed as in the former  
> case (705),, that it could  
F conduct a  
· current unable to  
e decompose it, for  
a decomposition of the  
d solution of iodide at *b*  
occurred after some time.  
But its con-  
ducting power was much  
below that of the fused  
chloride of  
lead (713).  
717. Fused *nitre* at *a*  
conducted much better  
than water: I  
was unable to decide with  
certainty whether it was  
electrolysed,  
but I incline to think not,  
for there was no  
discoloration against  
the platina at the *cathode*.  
If sulpho-nitric acid had  
been used  
in the exciting vessel, both  
the nitre and the chloride  
of lead  
would have suffered  
decomposition like the  
water (641).  
718. The results thus  
obtained of conduction

wit ches (154,159,180,185).  
 hou But  
 t it will require a more exact  
 dec knowledge of the nature of  
 om- intensity,  
 pos both as regards the first  
 itio origin of the electric  
 n,, current, and also  
 and the manner in which it  
 the may be reduced, or  
 nec lowered by the  
 ess intervention of longer or  
 ity shorter portions of bad  
 of a conductors,  
 cer whether decomposable or  
 tai not, before their relation  
 n can be  
 ele minutely and fully  
 ctr understood.  
 olyt 719. In the case of water,  
 ic the experiments I have as  
 int yet  
 ens made appear to show that,  
 ity when the electric current is  
 for reduced  
 the in intensity below the point  
 sep required for  
 ara decomposition, then  
 tio the degree of conduction is  
 n the same whether  
 of sulphuric acid,  
 the or any other of the many  
 ion bodies which can affect its  
 s of trans-  
 diff ferring power as an  
 ere electrolyte, are present or  
 nt not. Or, in other  
 ele words, that the necessary  
 ctr electrolytic intensity for  
 olyt water is the  
 es,, same whether it be pure,  
 are or rendered a better  
 im conductor by the  
 me addition of these  
 di- substances; and that for  
 ate currents of less in-  
 ly tensity than this, the  
 con water, whether pure or  
 nec acidulated, has  
 ted equal conducting power.  
 wit An apparatus, fig. 44, was  
 h arranged  
 the with dilute sulphuric acid  
 exp in the vessel A, and pure  
 eri distilled  
 me water in the vessel B. By  
 nts the decomposition at e, it  
 an appeared  
 d as if water was a *better*  
 res conductor than dilute  
 ult sulphuric acid  
 s for a current of such low  
 giv intensity as to cause no  
 en decomposition.  
 in § I am inclined, however, to  
 4 attribute this apparent  
 of superiority of  
 the water to variations in that  
 sec peculiar condition of the  
 ond platina elec-  
 par trodes which is referred to  
 t of further on in this part  
 the (776), and